

What is claimed is:

1. A web-fed flexographic printing method comprising the steps of:
 - (A) providing a holographic sheet on a first roller, the holographic sheet comprising a hologram, the holographic sheet further comprising an eye-mark, the eye-mark being located at a fixed location with reference to the hologram;
 - (B) providing a cardstock substrate on a second roller;
 - (C) feeding the holographic sheet and the cardstock substrate through a web-fed flexographic printer, the step of feeding the holographic sheet and the substrate comprising the steps of:
 - (C1) applying an adhesive to the cardstock substrate using an adhesive roller;
 - (C2) marrying the holographic sheet and the cardstock substrate using the adhesive applied to the cardstock substrate, the marrying of the holographic sheet and the cardstock substrate resulting in a married web;
 - (C3) detecting the eye-mark;
 - (C4) generating a feedback signal in response to detecting the eye-mark;
 - (C5) conveying the feedback signal to a controller, the controller being coupled to a motor, the controller being configured to control a rate of the motor in response to the feedback signal;
 - (C6) determining whether to adjust the rate of the motor in response to the feedback signal;
 - (C7) adjusting the rate of the motor in response to determining that the rate of the motor is to be adjusted;

- 22 (C8) overprinting ultra-violet (UV) ink onto the holographic sheet, the UV ink
23 being overprinted at a registered location, the registered location being a
24 location that is fixed with reference to the eye-mark;
- 25 (C9) curing the UV ink at a UV drying station;
- 26 (C10) die cutting the married web at a rotary die.

1 2. The method of claim 1, further comprising the step of:
2 printing a serial number on the married web prior to die cutting the married web; and
3 wherein the step of die cutting the married web comprises the step of generating an
4 identification tag having the printed serial number.

1 3. A printing method comprising the steps of:
2 providing a web for a web-fed flexographic printing process, the web having a micro-
3 optic structure and an eye-mark, the micro-optic structure being located at a predefined
4 position on the web, the eye-mark being located at a fixed position on the web with reference
5 to the predefined position of the micro-optic structure;
6 determining a feed rate for the web-fed flexographic printing process, the feed rate
7 being determined using the eye-mark;
8 feeding the web at the determined feed rate; and
9 overprinting a layer onto the surface of the web, the layer being printed using the
10 web-fed flexographic printing process.

1 4. The method of claim 3, wherein the step of providing the web comprises the
2 step of providing a holographic sheet having a hologram, the hologram being located at a
3 predefined position on the holographic sheet.

1 5. The method of claim 4, wherein the step of providing the holographic sheet
2 comprises the step of embedding a security feature in the web.

1 6. The method of claim 5, wherein the step of embedding a security feature in
2 the web comprises the step of embedding a three-dimensional stereogram into the hologram.

1 7. The method of claim 5, wherein the step of embedding a security feature in
2 the web comprises the step of embedding a marking in the holographic sheet, the marking
3 being configured to project a predefined image in response to the marking being irradiated by
4 a laser.

1 8. The method of claim 5, wherein the step of embedding a security feature in
2 the web comprises the step of embedding a holographic image in the holographic sheet, the
3 holographic image being configured to alter its visual appearance when viewed at different
4 angles.

1 9. The method of claim 5, wherein the step of embedding a security feature in
2 the web comprises the step of providing a microprint of a predefined pattern in the
3 holographic sheet.

1 10. The method of claim 5, wherein the step of embedding a security feature in
2 the web comprises the step of providing a nanoprint of a predefined pattern in the
3 holographic sheet.

1 11. The method of claim 5, wherein the step of embedding a security feature in
2 the web comprises the step of printing a unique serial number on the web.

1 12. The method of claim 11, further comprising the step of die cutting the web to
2 generate an identification tag having the unique serial number.

1 13. The method of claim 3, wherein the step of determining the feed rate
2 comprises the steps of:
3 detecting the eye-mark;
4 generating a feedback signal in response to detecting the eye-mark;
5 determining whether to adjust the feed rate; and
6 adjusting the feed rate in response to determining that the feed rate is to be adjusted,
7 otherwise maintaining the feed rate.

1 14. The method of claim 13, wherein the step of adjusting the feed rate comprises
2 the step of altering a speed of a feed motor.

1 15. The method of claim 3, wherein the step of overprinting the layer comprises
2 the step of:
3 overprinting the layer at a registered location on the web, the registered location being
4 a fixed position with reference to the location of the eye-mark.

1 16. The method of claim 3, further comprising the step of die cutting the web.

1 17. The method of claim 16, wherein the step of die cutting the web comprises the
2 step of generating identification tags.

1 18. In a web-fed flexographic printing process, a method comprising the steps of:
2 placing a micro-optic structure at a predefined position on a web;
3 placing an eye-mark on the web, the eye-mark being located at a fixed position on the
4 web with reference to the predefined position of the micro-optic structure;
5 determining a feed rate for the web-fed flexographic printing process, the feed rate
6 being determined using the eye-mark;
7 feeding the web at the determined feed rate; and
8 overprinting a layer onto the surface of the web.

1 19. An identification tag produced by a process comprising the steps of:

2 providing a web for a web-fed flexographic printing process, the web having a micro-
3 optic structure and an eye-mark, the micro-optic structure being located at a predefined
4 position on the web, the eye-mark being located at a fixed position on the web with reference
5 to the predefined position of the micro-optic structure;

6 determining a feed rate for the web-fed flexographic printing process, the feed rate
7 being determined using the eye-mark;

8 feeding the web at the determined feed rate; and

9 overprinting a layer onto the surface of the web, the layer being printed using the
10 web-fed flexographic printing process.

1 20. A tag for identifying merchandise, the tag comprising:

2 a holographic sheet defining a substantially planar surface, the holographic sheet
3 having a hologram, the hologram being located at a predefined location in the holographic
4 sheet;

5 means for impeding unauthorized duplication of the tag, the means for impeding
6 being coupled to the holographic sheet; and

7 a layer overprinted at a registered location on the substantially planar surface of the
8 holographic sheet, the registered location being a location that is horizontally fixed in the
9 plane of the holographic sheet, the registered location further being a location that is
10 vertically fixed in the plane of the holographic sheet, the registered location further being a
11 location that is fixed with reference to the location of the hologram.

1 21. An identification device comprising:
2 a structure defining the identification device, the structure having a micro-optic
3 image; and
4 a layer overprinted onto the surface of the structure.

1 22. The identification device of claim 21, wherein the structure is a substantially-
2 planar structure.

1 23. The identification device of claim 22, wherein the layer is overprinted at a
2 registered location, the registered location being a location that is horizontally fixed in the
3 plane of the substantially-planar structure, the registered location further being a location that
4 is vertically fixed in the plane of the substantially-planar structure, the registered location
5 further being a location that is fixed with reference to the location of the micro-optic image.

1 24. The identification device of claim 22, wherein the substantially-planar
2 structure comprises a flexible cardstock material.

1 25. The identification device of claim 22, wherein the micro-optic image is a
2 hologram.

1 26. The identification device of claim 25, further comprising means for impeding
2 unauthorized duplication of the identification device.

1 27. The identification device of claim 25, further comprising a security feature
2 adapted to impede unauthorized duplication of the identification device.

1 28. The identification device of claim 27, wherein the security feature comprises a
2 three-dimensional stereogram.

1 29. The identification device of claim 27, wherein the security feature comprises a
2 marking, the marking being configured to project a predefined image in response to the
3 marking being irradiated by a laser.

1 30. The identification device of claim 27, wherein the security feature comprises
2 an image configured to alter its visual appearance when viewed at different angles.

1 31. The identification device of claim 27, wherein the security feature comprises a
2 microprint of a predefined pattern.

1 32. The identification device of claim 31, wherein the predefined pattern is text.

1 33. The identification device of claim 27, wherein the security feature comprises a
2 nanoprint of a predefined pattern.

1 34. The identification device of claim 27, wherein the security feature comprises a
2 unique serial number.

1 35. The identification device of claim 22, wherein the layer is substantially
2 opaque.

1 36. The identification device of claim 22, wherein the layer is patterned on the
2 substantially-planar structure.

1 37. The identification device of claim 36, wherein the patterned layer comprises
2 an opening, the opening being located at a location corresponding to the micro-optic image.

1 38. The identification device of claim 37, wherein the micro-optic image has a
2 predefined shape, and the opening has a shape that substantially corresponds to the
3 predefined shape of the micro-optic image.

1 39. The identification device of claim 22, wherein the substantially-planar
2 structure is a non-rectangular geometric shape.